matched to the header-symbol-sequence signal for filtering the despread-header-symbol-sequence signal [despread-symbol-matched-means output] and for generating a start-data signal in response to the despread-header-symbol-sequence signal matching the frame-impulse response; and

control means, coupled to said symbol-matched means and said code means, [responsive to the start-data signal, for setting said frame-matched means for matching said frame-matched means to a sequence of symbols of a packet-symbol sequence signal, and] responsive to the start-data signal, for setting said symbol-matched means with a replica of a data-chip-sequence signal for matching said symbol-matched means to the data-chip-sequence signal.

9. (Once Amended) A method [, using a symbol-matched filter and a frame-matched filter with a spread-spectrum receiver on a received-spread-spectrum signal, the received-spread-spectrum signal having a plurality of packets, with each packet generated from spread-spectrum processing a header-symbol-sequence signal with a chip-sequence signal and from spread-spectrum processing a data-symbol-sequence signal with a data-chip-sequence signal,] for achieving code phase synchronization comprising the steps of:

[generating a replica of the chip-sequence signal;

generating, responsive to maximum frame-matched filter output signal, a control signal;

LAW OFFICES
DAVID NEWMAN
CHARTERED
CENTENNIAL SQUARE
P.O. BOX 2728
LA PLATA, MD 20646
(301) 934-6100

programming said symbol-matched filter, responsive to the control signal and using the replica of the chip-sequence signal, to set said symbol-matched filter a symbol-impulse response matched to the chip-sequence signal;

despreading, with the symbol-matched filter matched to the chip-sequence signal, a header portion of the packet from the received-spread-spectrum signal as a despread-header-symbol-sequence signal;

filtering, with said frame-matched filter having a frame-impulse response matched to the header-symbol-sequence signal, the despread-header-symbol-sequence signal;

generating from the filtered despread-header-symbol-sequence signal, a data-start signal in response to the despread-header-symbol-sequence signal matching the frame-impulse response of the frame-matched filter; and

despreading, responsive to timing from the data-start signal, with the symbol-matched filter matched to the chip-sequence signal, a data portion of the packet from the received-spread-spectrum signal as a despread-data-symbol-sequence signal]

loading the M spread-spectrum signal samples into the programmable-matched filter;

correlating the M spread-spectrum signal samples against the M local sequence symbols;

generating, responsive to alignment of the spread-spectrum signal samples with the M local sequence symbols, a

LAW OFFICES
DAVID NEWMAN
CHARTERED
CENTENNIAL SQUARE
P.O. BOX 2728
LA PLATA, MD 20646
(301) 934-6100

large information-bearing output at a second clock cycle, the second clock cycle being later in time than the first clock cycle;

loading, at a third clock cycle, the programmable-matched filter with a next group of M local sequence symbols, the third clock cycle being later in time than the second clock cycle;

receiving a next group of M spread spectrum signal samples;

correlating the next group of M local sequence symbols against the next group of M spread spectrum signal samples; and

generating, responsive to alignment of the next group of spread spectrum signal samples with the next group of M local sequence symbols, a large information-bearing output at a fourth clock cycle, the fourth clock cycle being later in time than the third clock cycle.

10. (Once Amended) The method as set forth in claim 9, [with the step of despreading the header portion of the packet from the received-spread-spectrum signal] further including the steps of:

[despreading, from the received-spread-spectrum signal, an in-phase component of the header portion of the packet as a despread-in-phase component of the despread-header-symbol-sequence signal; and

despreading, from the received-spread-spectrum signal,

LAW OFFICES
DAVID NEWMAN
CHARTERED
CENTENNIAL SQUARE
P.O. BOX 2728
LA PLATA, MD 20646
(301) 934-6100

a quadrature-phase component of the header portion of the packet as a despread-quadrature-phase component of the despread-header-symbol-sequence signal]

loading the programmable-matched filter with a next group of M local sequence symbols;

receiving a next group of M spread-spectrum signal samples; and

correlating the next group of M local sequence symbols against the next group of M spread-spectrum signal samples;

loading, at a fifth clock cycle, the programmable-matched filter with a third group of M local sequence symbols, the fifth clock cycle being later in time than the fourth clock cycle;

receiving a third group of M spread spectrum signal samples;

correlating the third group of M local sequence symbols against the third group of M spread spectrum signal samples; and

generating, responsive to alignment of the third group of spread spectrum signal samples with the third group of M local sequence symbols, a large information-bearing output at a sixth clock cycle, the sixth clock cycle being later in time than the fifth clock cycle.

Kindly add the following claim:

--21. A method, using a symbol-matched filter and a frame-

LAW OFFICES
DAVID NEWMAN
CHARTERED
CENTENNIAL SQUARE
P.O. BOX 2728
LA PLATA, MD 20646
(301) 934-6100

B3 ind

matched filter as part of a spread-spectrum receiver on a received-spread-spectrum signal having a plurality of packets, with each packet of said plurality of packets generated from spread-spectrum processing a header-symbol-sequence signal with a chip-sequence signal and from spread-spectrum processing a data-symbol-sequence signal with the chip-sequence signal, comprising the steps of:

generating a replica of the chip-sequence signal;

filtering, with a symbol-matched filter having a symbol-impulse response set from the replica of the chip-sequence signal, from the received-spread-spectrum signal, a header portion of the packet, to output a despread-header-symbol-sequence signal;

filtering, from the received-spread-spectrum signal, a data portion of the packet to output a despread-data-symbol-sequence signal;

filtering, with a frame-matched filter having a frame-impulse response matched to the header-symbol-sequence signal, the despread-header-symbol-sequence signal;

generating a start-data signal in response to the despread-header-symbol-sequence signal matching the frame-impulse response; and

setting said symbol-matched filter with a replica of a data-chip-sequence signal for matching said symbol-matched filter to the data-chip-sequence signal.--

LAW OFFICES
DAVID NEWMAN
CHARTERED
CENTENNIAL SQUARE
P.O. BOX 2728
LA PLATA, MD 20646
(301) 934-6100

57

B